

REMARKS

Election of Claims

Applicant thanks the Examiner for her favorable consideration of Applicant's election with traverse. While claims 24 and 34 are withdrawn from current consideration as being drawn to a non-elected species, these claims are dependent from a generic claim currently under consideration. If the generic claims from which Claims 24 and 34 depend are deemed allowable, Applicant respectfully requests that the Examiner subsequently allow Claims 24 and 34.

Claim Rejections – 35 USC § 102

Claims 21-23, 25-27, 29-33, 35-37 and 39-40 were rejected under 35 U.S.C. § 102 as being anticipated by Baroud et al. (PCT Publication No. WO 00/06054). The Examiner stated:

Baroud et al. discloses an implant for replacing the proximal portion of a femur having a substantially intact natural femoral neck and a lateral side opposite the femoral neck, wherein the implant comprises a solid body member, 4, having a longitudinal axis, a distal end, and a proximal end, being configured for positioning, in use, in the natural femoral neck such that the proximal end of the solid body member is not distal to a narrowest portion of the femoral neck (see figure 4). In addition, the proximal end of the solid body member is at or proximal to a narrowest portion of the femoral neck and the distal end of the solid body member extends distal to the narrowest portion of the femoral neck (see figure 4).

The implant further includes a head member, 20, having a distal end and a proximal substantially-spherical portion configured for positioning in a natural or prosthetic hip socket, a joining member, 2', positioned between the distal end of the head member and the proximal end of the body member, a fastener, 22', spaced distally from the joining member and insertable, in use, between the distal end of the body member and the exterior of the lateral side of the femur, substantially in line with the longitudinal axis of the solid body member and wherein no other fasteners pass within or through the femur (see figure 4).

The solid body member has a length for positioning, in use, the natural femoral neck without passage of the distal end through the lateral side of the femur. The body member further comprises a collar, 21', positioned at the proximal end of the body member and configured for abutting contact, in use, with a proximal surface of the resected femoral neck. Furthermore, the body member, the head member, and the joining member are capable being integrally attached (see figure 4).

The body member and the joining member are an integral unit (see figure 4). The joining member comprises at least one morse-tapered portion (see figure 4). The fastener comprises a compression screw extending between the exterior lateral side of

the femur and the solid body member (see figures 1 and 4). The distal end of the solid body member is configured to connect with the fastener and at least a portion of the body member is substantially circular in cross section (see figure 4).

With respect to Claim 21, Applicant respectfully submits that Baroud fails to disclose each and every element of the claim. Baroud discloses a “support ring” that is positioned in a void reamed in the proximal side of the femur. Baroud does not teach a solid body positioned in the femoral neck such that the *proximal end of the solid body member is not distal to a narrowest portion of the femoral neck*. The proximal end of the support ring disclosed by Baroud is distal to the narrowest portion of the femoral neck, primarily because the narrowest portion of the femoral neck in Baroud has been resected. This is clearly evident in the drawings of Baroud, which display the support ring positioned distal to the narrowest portion of the femoral neck (or what would be the narrowest portion had it not been resected).

With respect to their relative positions in the femoral neck, the differences between the Baroud device and Applicant’s claimed invention are further evident when considering how each is designed to transfer loads to the femur. The support ring of Baroud bears upon a support surface 33 that is essentially the width of the cortical bone 11. In contrast, the bearing forces of Applicant’s solid body relies upon contact with an inner surface of the cortex. Because Applicant’s claimed device transmits forces to this inner surface of the cortex, it is important that the device be configured such that the *proximal end of the solid body member is not distal to a narrowest portion of the femoral neck*. This lengthens the area over which the solid body contacts the cortex and is highlighted in Applicant’s specification in paragraph [0029], which states that the “femoral neck fixation prosthesis . . . is designed to achieve fixation in the isthmus of the femoral neck.” This concept is further highlighted in paragraph [0037], which states that “[f]ixation to the femur will be achieved by reaming the femoral neck 105 to accommodate a

cylindrical porous sleeve body” and that “reaming will be progressive until the cortex of the femoral neck is encountered.”

For the foregoing reasons, Applicant respectfully requests that the rejections of Claim 21 under 35 U.S.C. § 102 be withdrawn. Since Claims 22, 23, 25-27, 29, and 30 depend from Claim 21, these claims are also allowable over Baroud. Applicant respectfully requests that the rejections of Claims 22, 23, 25-27, 29, and 30 under 35 U.S.C. § 102 be withdrawn.

With respect to Claims 31, Applicant respectfully submits that Baroud fails to disclose each and every element of the claim. Baroud discloses a “support ring” that is positioned in a void reamed in the proximal side of the femur. Baroud does not teach a solid body positioned in the femoral neck such that the *proximal end of the solid body member is at or proximal to a narrowest portion of the femoral neck*. The proximal end of the support ring disclosed by Baroud is *distal* to the narrowest portion of the femoral neck, primarily because the narrowest portion of the femoral neck in Baroud has been resected. This is clearly evident in the drawings of Baroud, which display the support ring positioned distal to the narrowest portion of the femoral neck (or what would be the narrowest portion had it not been resected).

With respect to their relative positions in the femoral neck, the differences between the Baroud device and Applicant’s claimed invention are further evident when considering how each is designed to transfer loads to the femur. The support ring of Baroud bears upon a support surface 33 that is essentially the width of the cortical bone 11. In contrast, Applicant’s solid body relies upon contact with an inner surface of the cortex. Because Applicant’s claimed device transmits forces to this inner surface of the cortex, it is important that the device be configured such that the *proximal end of the solid body member is at or proximal to a narrowest portion of the femoral neck*. This lengthens the area over which the solid body contacts the

cortex and is highlighted in Applicant's specification in paragraph [0029], which states that the "femoral neck fixation prosthesis . . . is designed to achieve fixation in the isthmus of the femoral neck." This concept is further highlighted in paragraph [0037], which states that "[f]ixation to the femur will be achieved by reaming the femoral neck 105 to accommodate a cylindrical porous sleeve body" and that "reaming will be progressive until the cortex of the femoral neck is encountered."

For the foregoing reasons, Applicant respectfully requests that the rejections of Claim 31 under 35 U.S.C. § 102 be withdrawn. Since Claims 32, 33, 35-37, 39, and 40 depend from Claim 31, these claims are also allowable over Baroud. Applicant respectfully requests that the rejections of Claims 32, 33, 35-37, 39, and 40 under 35 U.S.C. § 102 be withdrawn.

Claim Rejections – 35 USC § 103

Claims 28 and 38 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Baroud et al. (PCT Publication No. WO 00/06054) in view of Sotereanos (U.S. Patent No. 6,284,002). The Examiner stated:

Baroud et al. discloses the claimed invention except for a first surface coating on at least a portion of the body member for promoting bone ingrowth into the coating following implantation. Sotereanos discloses an implant for replacing the proximal portion of a femur comprising a porous coating, 22, and teaches the use of a porous coating in order to promote bone ingrowth (see column 5, lines 19-42, and figure 1). It would have been obvious to one skilled in the art at the time the invention was made to construct the implant of Baroud et al. with a first surface coating on at least a portion of the body member in view of Sotereanos, in order to promote bone ingrowth into the coating following implantation.

For the reasons stated previously with respect to the rejections of Claims 21 and 31 under 35 U.S.C. § 102, Claims 21 and 31 are allowable. Since Claims 28 and 38 depend from Claims 21 and 31, respectively, these claims are also allowable. Applicant respectfully requests that the rejections of Claims 28 and 38 under 35 U.S.C. § 103 be withdrawn.

CONCLUSION

Applicant respectfully submits that the pending Claims 21-23, 25-33 and 35-40 are in condition for allowance and such a Notice is respectfully requested. The Examiner is invited to call the undersigned at the below-listed telephone number if, in the opinion of the Examiner, such a telephone conference would expedite or aid the prosecution and examination of this application.

Respectfully submitted,

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Robert C. Hilton
Reg. No. 47,649
PATTON BOGGS LLP
2001 Ross Avenue
Suite 3000
Dallas, Texas 75201
TEL: 214- 758-6641
FAX: 214-758-1550

ATTORNEYS FOR APPLICANT